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(71) Applicant *(for all designated States except US)*: CLEVERWORX INC. [US/AU]; Suite 168, 45 Cribb Street, Milton, QLD 4064 (AU).

(72) Inventor; and
(75) Inventor/Applicant *(for US only)*: OLIVER, Brian, Keith [AU/AU]; 18/35 Troughton Road, Robertson, QLD 4109 (AU).

(74) Agent: PIZZEYS PATENT & TRADE MARK ATTORNEYS; Level 6, 444 Queen Street, Brisbane, QLD 4000 (AU).

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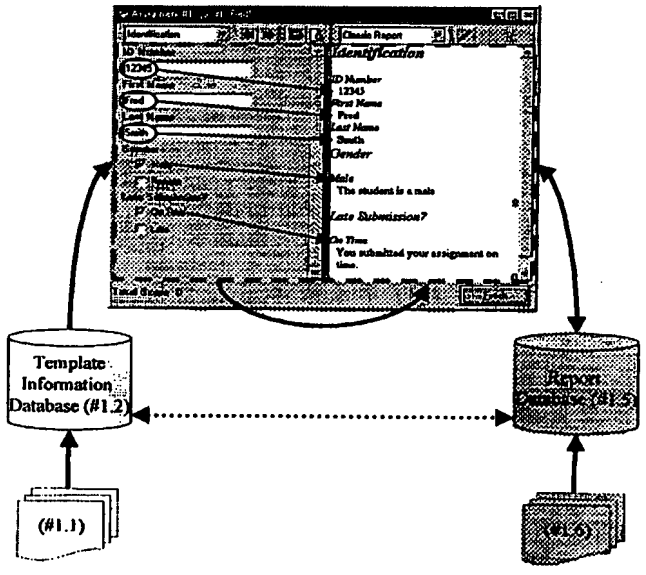

(57) Abstract

A method enabling the compilation of a report from stored template information, the method including: establishing a template database for storing user defined template information; providing presentation means for displaying stored template information whereby all or a portion of the template information may be selected for inclusion in a compiled report; establishing a report database to store reports generated by the assembly of all or portions of selected template information whereby each report may include a user defined set or sub-set of template information from the template database, and enabling the display of template information as well as one or more reports assembled from selected templates information.

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"A COMPUTERISED METHOD OF COMPILING REPORTS"

This invention relates to a computerised method of compiling a report from user defined template information.

This invention has particular application to such method whereby on-screen editing can occur during generation of the report created by the selection of stored template information. Preferably the editable report is assembled on-screen in one segment of a split window while the selected, editable and selectable template information for the report appears in another segment of a split window. Most preferably the report and the selected and selectable template information appear simultaneously at opposite sides of the screen.

BACKGROUND OF THE INVENTION

Much of what people and organisations do in the workplace is intimately tied up with the use, re-use and expansion of existing knowledge, expertise, facts, strategies and other information in reports, assessments and other documents. For example schoolteachers and university academics spend many hours marking and providing feedback on large numbers of student assignments. Doctors and other health professionals produce assessments or reports about patients that they deal with. Engineers, quality managers and auditors spend large amounts of time conducting inspections, audits or assessments and writing reports about each audit.

In each of these cases similar knowledge may be used to produce each report or assessment. For example, when marking student essays a teacher may want to provide feedback to students about the structure of their essays. One possible comment about the structure might be:

"Your essay does not include an adequate introduction. Your introduction should at least summarise the main

arguments that you are going to use in the body of your essay."

Generally a teacher will hand write this comment onto the student's paper, or may type the feedback into a report. The teacher may write or type this comment many times. This is both time consuming and error prone. Furthermore effective expressions which may have been time consuming to compile are unlikely to be saved for future use.

In addition when apportioning marks it is often not possible to establish from the start a fair grading of marks. Often this can be not be done until all papers have been corrected. This may require a review of the papers which were first marked. Other grading tasks have similar difficulties.

This invention aims to alleviate at least one of the above disadvantages, and in one aspect, aims to provide means for making report generation tasks more efficient.

DESCRIPTION OF A COMPUTER

For the purposes of this application the term computer includes a machine of the general type as outlined in Fig. 6. Typically a computer optionally includes one or more selection devices being keyboard input or pointing devices, a plurality of display devices, mass storage means, printing means, network communication means, an input/output controller, main memory and a plurality of central processors and possibly associated cache memory, connected by a communication mechanism or bus of some description.

SUMMARY OF THE INVENTION

With the foregoing in view, this invention in one aspect resides broadly in a method enabling the compilation of an report from stored template information, the method including:

establishing a template database for storing user

defined template information;

providing presentation means for displaying stored template information whereby all or a portion of the template information may be selected for inclusion in a compiled report;

establishing a report database to store reports generated by the assembly of all or portions of selected template information whereby each report may include a user defined set or sub-set of template information from the template database, and

enabling the display of template information as well as one or more reports assembled from selected template information.

The template information may be pre-defined information but preferably the template information is user defined information and more preferably editable user defined information. It is also preferred that the display is enabled whereby simultaneous display of template information as well as one or more reports assembled from selected template information is provided and most preferably on a single screen and suitably having the template information displayed in one side of a split-window and the compiled report of the corresponding selected template information in the other side of a split-window. In addition it is preferred that the display of template information is searchable view of template information.

Preferably, the method includes:-

providing editing means for editing the template information and/or assembled reports;

establishing an association between the template and report databases whereby:

changes made to template information automatically update the corresponding unedited template information in assembled reports stored in the report database, and/or

changes made to report information in the report

database do not affect the corresponding template information in the template database. By this mechanism if a user selects a template information element for inclusion in a report, a corresponding element appears as a report information element in the report. Provided this corresponding report information remains unedited in the report, subsequent editing of the template information element will be reflected in the unedited corresponding report information element. Conversely subsequent editing of the report information element does not change the template information element.

A preferred method of associating template information contained within a report and stored in the report database, with the corresponding template information stored in the template database is to:-

provide the template information as a structured set of information;

uniquely identifying each element of the template information set stored in the template database, and

storing only the corresponding template information identification in each compiled report stored in the report database. One preferred method of associating template and report information is to use conventional database "foreign" keys as outlined in Fig. 8. By using this method of association, changes made to the report database do not effect the template information, as only foreign key references are stored in the report database and not actual template information.

Furthermore any changes made to the template information may automatically be reflected in the report database as the report database foreign keys refer to the template information.

The method may also include:-

establishing abbreviation means for abbreviating user defined template information, and

providing display customisation means whereby a user may choose to display either the template information or the abbreviated template information to minimise the amount of on-screen template information displayed. This enables more selectable template information elements from the template database to be simultaneously displayed for incorporation in full in the compiled report or reports.

In a preferred embodiment of the invention the method further includes:

providing associating means for associating user defined operational attributes with template information such that weightings may be attached as user-defined attributes to each template information, to allow the automatic generation of assessments score or grade or the like, along with the detailed report.

An efficient means for associating operational attributes to template information is to use conventional database technology to add an additional field or column of information to the template information database to store the appropriate operational attribute, as is the case with the weightings attribute in Fig 2, or by adding a BLOB (binary large object field) to store multiple operational attributes. By storing operational attributes with the template information in the template information database and using the above means of associating the template and report databases, changes made to an operational attribute, such as a weighting, will mean that all reports containing the weighted information will automatically be updated.

It is also preferred that the method includes constraining means for constraining the use of template information in a report based on previously selected information elements for the report. Preferably the template information to be constrained is user defined. By providing constraining means that respond to selection characteristics of the previously used template information in a report an

end-user will only be presented with and made available the relevant template information for their current report. Fig. 11 illustrates the result of constraining the available template information caused by the selection. This application of the constraints corresponds to the data in the "Constraint List" column of the Response Template Information Element Table of Fig. 2.

Constraints are beneficial, for example, when conducting surveys containing gender specific template information. Only the template information relevant to the gender selected will be displayed for inclusion in a compiled report.

It is further preferred that the above method includes a provision that allows an end-user to define and store the order in which template information will be presented for possible selection. This template information is illustrated by the "Scroll to ID" column in the Response Template Information Element table in Fig. 2.

By allowing an end-user to define "navigation information" and store it with the template information an end-user may simply indicate the next appropriate template information element displayed upon selection of some other previous template information. This allows for the "automatic scrolling" of template information to improve the efficiency of using the template information to compile editable reports. It also means an end-user does not have to use the standard scrolling mechanism to advance to the next selectable template information element.

It is further preferred that the above method of compiling reports also provides a means of exporting and communicating reports in user specified formats. For example, the template information could be a variety of media formats, including but not limited to text, print graphical, sound, animation or video. This may simply be achieved by sending the contents of the report split window or report database to one or more devices capable of producing the end-

user required format.

By utilising a method as defined above, a user may compile one or more reports each of which comprises a compilation of template information. Each compiled report may be displayed, played and/or edited as required. Any portion of template information in each of the reports may be changed automatically by making the desired change to the corresponding template information. An assessor using the above method may add, modify or remove particular template information in the template information database and have, if desired, all corresponding template information in previously compiled reports automatically updated without the need to individually select previously compiled reports to be updated. These additions, modifications or deletions to template information may take place before, during and after compilation of the reports.

Although the template and report databases may be realised as conventional databases or flat file structures or the like, this may not necessarily be the most efficient method of implementation. Preferably the template and/or report databases is realised as databases, hereinafter referred to ALPHA databases and being of the type described in our co-pending Australian patent application No. PCT\AU 98\00162.

This provides advantages over conventional databases structures in that user defined information can be more easily restructured and extended and in relation to flat file structures in that user defined information can be more easily and efficiently searched and managed, as required by this invention.

In another aspect, this invention resides broadly in a method enabling the compilation of a report from stored template information, the method including:

establishing a template database for storing user defined template information;

providing presentation means for displaying stored template information at one side of a split window whereby all or a portion of the template information may be selected for inclusion in a compiled report, and

providing managing means for simultaneously and selectively displaying all or portions of the stored template information at one side of a split window and the report or reports being assembled by selection of template information in the other side of said split window.

Preferably according to this further aspect the method includes:-

establishing a report database to store reports generated by the assembly of all or portions of selected template information whereby each report may include a user defined set or sub-set of template information from the template database;

providing editing means for editing the template information and/or assembled reports;

establishing an association between the template and report databases whereby:

changes made to template information automatically update the corresponding unedited template information in assembled reports stored in the report database, and/or

changes made to report information in the report database do not affect the corresponding template information in the template database.

The preferred forms of utilising the invention defined in pages 3 to 7 above are also preferred options in this further aspects of this invention defined below.

In yet another aspect this invention resides broadly in a method enabling the compilation of an editable report from stored editable template information, the method including:

establishing a template database for storing user defined template information;

providing selection means for displaying a searchable

view of stored template information whereby all or a portion of the selected template information may be selected for inclusion in a compiled report, and

establishing a report by the compilation of all or a portion of selected template information.

DESCRIPTION OF TYPICAL EMBODIMENT

In order that this invention may be readily understood and put into practical effect, reference will be made hereinafter to the accompanying drawings wherein:-

FIG. 1 is an overview of a typical embodiment of this invention;

FIG. 1A illustrates a further split screen illustrating the expanded display of a report from abbreviated template information;

FIG. 2 is an example of a template information database;

FIG. 3 is an illustration of a template information and compiled report split window;

FIG. 4 is an algorithm to display the template information database in a split window;

FIG. 5 illustrates a computer;

FIG. 6 specifies the characteristics of a computer;

FIG. 7 is an algorithm to display a compiled report constructed by selected template information;

FIG. 8 is an example of a report database;

FIG. 9 is an example template information "on selection" algorithm;

FIG. 10 is an example algorithm to "constrain" template information on selection;

FIG. 11 illustrates the result of constraining template information;

FIG. 12 is an example template information "on un-selection" algorithm;

FIG. 13 is an example algorithm to "de-constrain"

template information after un-selection;

FIG. 14 is an example algorithm to calculate a report score;

FIG. 15 illustrates an interface to modify template information properties (a);

FIG. 16 illustrates an interface to modify template information properties (b);

FIG. 17 illustrates an interface to modify template information properties (c), and

FIG. 18 illustrates an application user interface as an embodiment this invention.

According to the embodiment in Fig. 1 template information #1.1, Fig. 2 and Fig. 3 is stored in a template information database #1.2 and Fig. 2 and is retrieved and displayed according to the algorithm in Fig. 4 in a template window #1.3 and Fig. 3 for selection #3.1 by an end-user using a computer and selection device Figs. 5 and 6 to be included in a compiled report #3.2, Fig. 1A displayed according to the algorithm in Fig. 7 in a report window #1.4 and Fig. 3 and stored in a report database #1.5 and Fig. 8 as report records #1.6 and Figs. 8.

It should be noted that the database schema illustrated in Fig. 2 and Fig. 8 follow the structure of an ALPHA database as described in our co-pending Australian patent application No. PCT\AU 98\00162.

Preferably when an end-user selects template information #3.1 using a computer and selection device Figs. 5 and 6, the selection algorithm in Fig. 9 is performed along with the constraining algorithm in Fig. 10, Fig. 11 detailing the result of the constraint algorithm. The autoscroll algorithm is also performed when a user selects a template information element. This algorithm uses the value in the "Scroll to ID" column of the Response Template Information Element Table in Fig. 2 to determine the next template information element to display and then uses this new template information element

as the "first" value when applying the algorithm in Fig. 4.

Correspondingly, when an end-user un-selects template information #3.1 using a computer and selection device Figs. 5 and 6 the un-selection algorithm in Fig. 12 is performed along with the de-constraining algorithm in Fig. 13.

Furthermore whenever the compiled report is displayed through the use of the algorithm in Fig. 7, the report score should also be calculated, using the algorithm in Fig. 14, and displayed accordingly as in #3.3. A template information score #15.1, along with any other template information properties may be entered using the windows detailed in Figs. 15, 16 and 17 and stored as in Fig. 2. In particular, Abbreviated Template Information, Default Template Information Selection, Detailed Template Information and Template Information Constraints may be maintained by the end-user as in #15.2, #15.3, #16.1 and Fig. 17 respectively and stored in the template information database as in Fig 2. Fig. 17.1 details the currently constrained Template Information and Fig. 17.2 details the template information that may be constrained.

Fig. 18 outlines an application using a typical embodiment of this invention, detailing a structure of related template information elements #18.1, the tools to create new template information #18.2 and an assessment window #18.3, containing the selectable template information window and the compile report window.

The example below highlights the use of this invention for the purpose of academic assessment. Note however that the utility of this invention is not restricted to domain of academic assessment, rather this invention may be used in any field whereby information is gathered, collected, stored, analysed, reported or acted upon in some manner.

Example Scenario:

Assume an assessor is required to assess, score, grade and give feedback for a number of student assessments. During the assessment process, the assessor often recognises that many students make either similar mistakes or require similar feedback comments on their assignments. Rather than having to write the same or similar comments multiple times, the assessor may:

i). Define the common comments and feedback as template information Figs. 15, 16, 17 organised in a structure according to #18.1 in the template information split window #1.3, #3.1 and #18.3, and then

ii). during assessment simply select the required template information #3.1 in the template information split window #1.3 and #18.3 to have the system place the selected template information in the report split window #1.4, #3.2, and #18.3 where it may be edited and/or specialised #3.4 for the student as necessary.

By entering and selecting relevant template information in template information split window #3.1 for a student's assessment, a report is built up in the report split window 1.2 which may be later printed, faxed or emailed to the student as feedback on their assignment.

BENEFITS OF THIS INVENTION

This invention provides particular benefit in simplifying the process of creating reports where the content of the reports can be specified as template information as the content of the report is simply selected from template information, rather than being newly created for each report.

This invention makes template information visible and directly accessible to the user so that selection of the appropriate template information for each report is an efficient process.

This invention provides a mechanism for standardization

of the content of reports that are created by many different individuals. For example, where a large number of student assignments have to be marked, and these assignments are distributed among several teachers, this invention provides standardization of the criteria used to assess the students by making the same template information available to all assessors. This invention can be used to make specialist expert knowledge available to people who would not ordinarily possess this knowledge. For example, a professor may make detailed assessment criteria available as template information, and this template information may then be used by less knowledgeable staff in the assessment of student assignments.

A system implementing this invention allows the user of the system to see the report being constructed and to edit this report, as the user is working. In many other systems display and editing of compiled reports does not occur simultaneously with the construction of the report.

Because this invention allows additions, modifications and deletions to template information to be automatically applied to report information, this invention allows the template information to be improved over time without the need to regenerate existing reports. As a result this invention is particularly useful in industries where the content and structure of information to be collected, stored, compiled, processed and reported upon is not completely known or fixed when established.

For example, an industry that performs assessments, surveys, makes extensive use of notes, requires judgments to be made, or provides quotations, estimates and alike, could make use of systems implementing this invention. Similarly any field where the structure and content of information is volatile can also make extensive use of systems implementing this invention

It will of course be realised that the above has been

given only by way of illustrative example of the invention and that all such modifications and variations thereto as would be apparent to persons skilled in the art are deemed to fall within the broad scope and ambit of the invention as is defined in the appended claims.

THE CLAIMS DEFINING THIS INVENTION ARE AS FOLLOWS:-

1. A method enabling the compilation of an report from stored template information, the method including:

establishing a template database for storing user defined template information;

providing presentation means for displaying stored template information whereby all or a portion of the template information may be selected for inclusion in a compiled report;

establishing a report database to store reports generated by the assembly of all or portions of selected template information whereby each report may include a user defined set or sub-set of template information from the template database, and

enabling the display of template information as well as one or more reports assembled from selected template information.

2. A method as claimed in claim 1, including enabling simultaneous display of template information as well as one or more reports assembled from selected template information.

3. A method as claimed in claim 1 or claim 2, including providing editing means for editing the template information and/or assembled reports;

establishing an association between the template and report databases whereby:

changes made to template information automatically update the corresponding unedited template information in assembled reports stored in the report database, and/or

changes made to report information in the report database do not affect the corresponding template information in the template database.

4. A method as claimed in any one of claims 1 to 3, including:

providing the template information as a structured set of information;

uniquely identifying each element of the template information set stored in the template database, and

storing only the corresponding template information identification in each compiled report stored in the report database.

5. A method as claimed in any one of the preceding claims, including:

establishing abbreviation means for abbreviating user defined template information, and

providing display customisation means whereby a user may choose to display either the template information or the abbreviated template information to minimise the amount of on-screen template information displayed.

6. A method as claimed in any one of the preceding claims, including providing affiliation means for affiliating user defined operational attributes with template information.

7. A method as claimed in any one of the preceding claims, including:

providing constraining means for constraining the use of template information to relevant template information based on previously selected template information for the report.

8. A method as claimed in any one of the preceding claims, wherein the presentation means provides a searchable view of stored template information and the report being assembled on one screen.

9. A method as claimed in any one of the preceding claims,

including:

providing editable navigation information as template information, and

providing navigation means utilising the provided navigation information to determine the next information element for display upon the selection of some other template information element by the user.

10. A method enabling the compilation of a report from stored template information, the method including:

establishing a template database for storing user defined template information;

providing presentation means for displaying stored template information at one side of a split window whereby all or a portion of the template information may be selected for inclusion in a compiled report, and

providing managing means for simultaneously and selectively displaying all or portions of the stored template information at one side of a split window and the report or reports being assembled by selection of template information in the other side of said split window.

11. A method as claimed in claim 10, including:

establishing a report database to store reports generated by the assembly of all or portions of selected template information whereby each report may include a user defined set or sub-set of template information from the template database;

providing editing means for editing the template information and/or assembled reports;

establishing an association between the template and report databases whereby:

changes made to template information automatically update the corresponding unedited template information in assembled reports stored in the report database, and/or

changes made to report information in the report database do not affect the corresponding template information in the template database.

12. A method as claimed in claim 10 or claim 11, including:

providing the template information as a structured set of information;

uniquely identifying each element of the template information set stored in the template database, and

storing only the corresponding template information identification in each compiled report stored in the report database.

13. A method as claimed in any one of claims 10 to 12, including:

establishing abbreviation means for abbreviating user defined template information, and

providing display customisation means whereby a user may choose to display either the template information or the abbreviated template information to minimise the amount of on-screen template information displayed.

14. A method as claimed in any one of claims 10 to 13, including providing affiliation means for affiliating user defined operational attributes with template information.

15. A method as claimed in any one of claims 10 to 14, including:

providing constraining means for constraining the use of template information to relevant template information based on previously selected template information for the report.

16. A method as claimed in any one of claims 10 to 15, wherein the presentation means provides a searchable view of

stored template information and the report being assembled on one screen.

17. A method as claimed in any one of claims 10 to 16, including:-

providing editable navigation information as template information, and

providing navigation means utilising the provided navigation information to determine the next information element for display upon the selection of some other template information element by the user.

18. A method enabling the compilation of an editable report from stored editable template information, the method including:

establishing a template database for storing user defined template information;

providing selection means for displaying a searchable view of stored template information whereby all or a portion of the selected template information may be selected for inclusion in a compiled report, and

establishing a report by the compilation of all or a portion of selected template information.

19. A method as claimed in any one of claims 2, 10 or 18 including:

providing editable weightings as template information, and

providing arithmetic means utilising the provided weightings for calculating a weighted assessment score or grade or the like with the assembled report.

20. A method as claimed in any one of the proceeding claims, including:

storing the template and/or report information in respective ALPHA databases.

Fig. 1

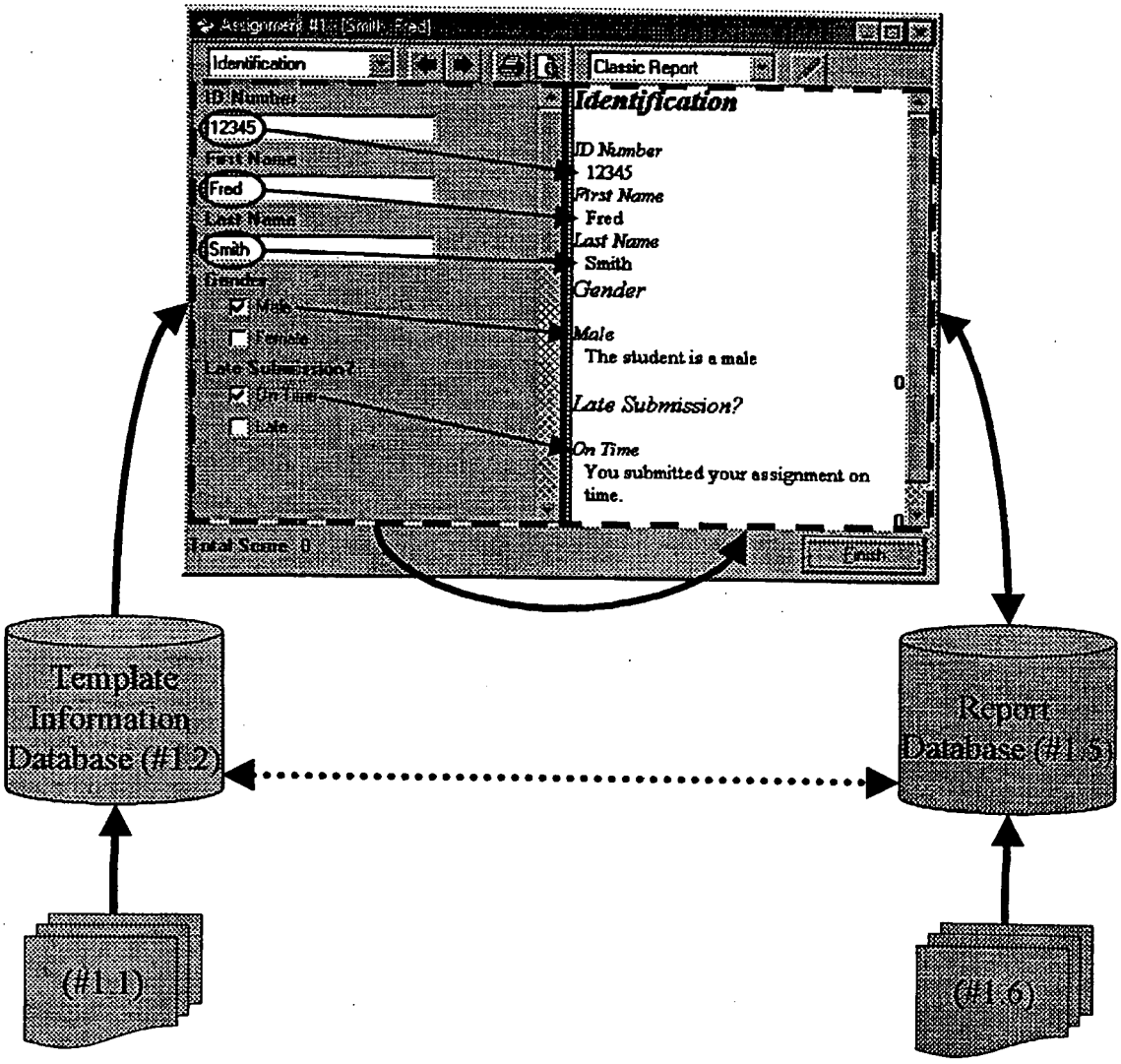

Identification
Classic Report
ID Number
12345
First Name
Fred
Last Name
Smith
Gender
Male
Female
Late Submission?
On Time
Late
Identification
ID Number
12345
First Name
Fred
Last Name
Smith
Gender
Male
The student is a male
Late Submission?
On Time
You submitted your assignment on time.
Total Score: 0
Template Information Database (#1.2)
Report Database (#1.5)
(#1.1)
(#1.6)

Fig. 1a

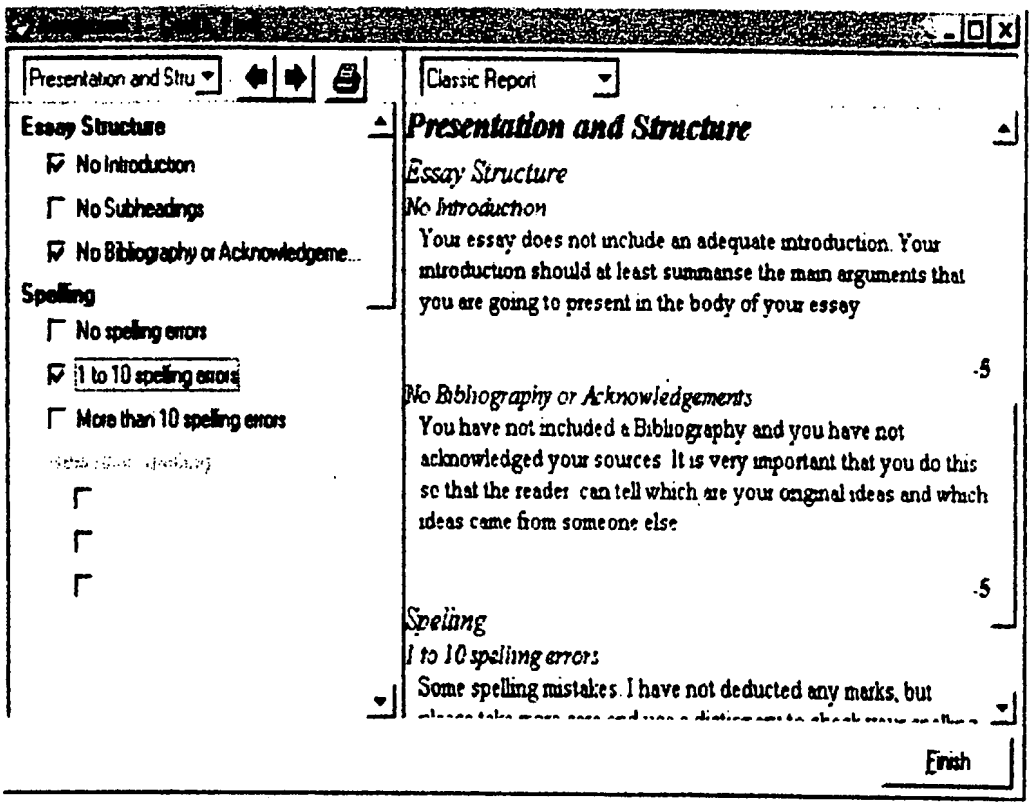

Presentation and Stru
Classic Report
Essay Structure
No Introduction
No Subheadings
No Bibliography or Acknowledgeme...
Spelling
No spelling errors
1 to 10 spelling errors
More than 10 spelling errors
Presentation and Structure
Essay Structure
No Introduction
You essay does not include an adequate introduction. Your introduction should at least summarise the main arguments that you are going to present in the body of your essay
-5
No Bibliography or Acknowledgements
You have not included a Bibliography and you have not acknowledged your sources It is very important that you do this so that the reader can tell which are your original ideas and which ideas came from someone else
-5
Spelling
1 to 10 spelling errors
Some spelling mistakes. I have not deducted any marks, but
Finish

Fig. 2

Response Template Information Element Table

Template ID	Abbreviated Information	Detailed Information	Screen Position	Weighting	Select By Default	Constrain List	Scroll To ID	Other Attributes
5	Male	The student is male	1,5	1	False	-	7	-
6	Female	The student is female	1,6	2	True	-	7	-
8	On Time	Well Done...	1,8	2	True	-	10	-
9	Late	The assignment was..	1,9	-2	False	-	10	-
10	No Intro...	You did not provide an...	0,10	-2	False	11...15	-	-
12	Poor	A poor introduction	1,12	1	False	-	-	-
13	Average	An average introduction	1,13	2	False	-	-	-
14	Good	A good introduction	1,14	3	False	-	-	-
15	Excellent	An excellent introduction	1,15	4	False	-	-	-

Textbox Template Information Element Table

Template ID	Abbreviated Information	Detailed Information	Screen Position	Default Text	Other Attributes
1	Student #	Student Identification ...	0,0	#######	-
2	First Name	Student First Name...	0,1	Name	-
3	Last Name	Student Last Name	0,2	Name	-

Section Structure Template Information Element Table

Template ID	Abbreviated Information	Detailed Information	Screen Position	Child Template IDs	Other Attributes
4	Gender	Student Gender	0,4	5, 6	-
7	Late Sub..	Was submission late?	0,7	8,9	-
11	Introduction	Assignment Introduction	0,11	12..15	-

Fig. 3

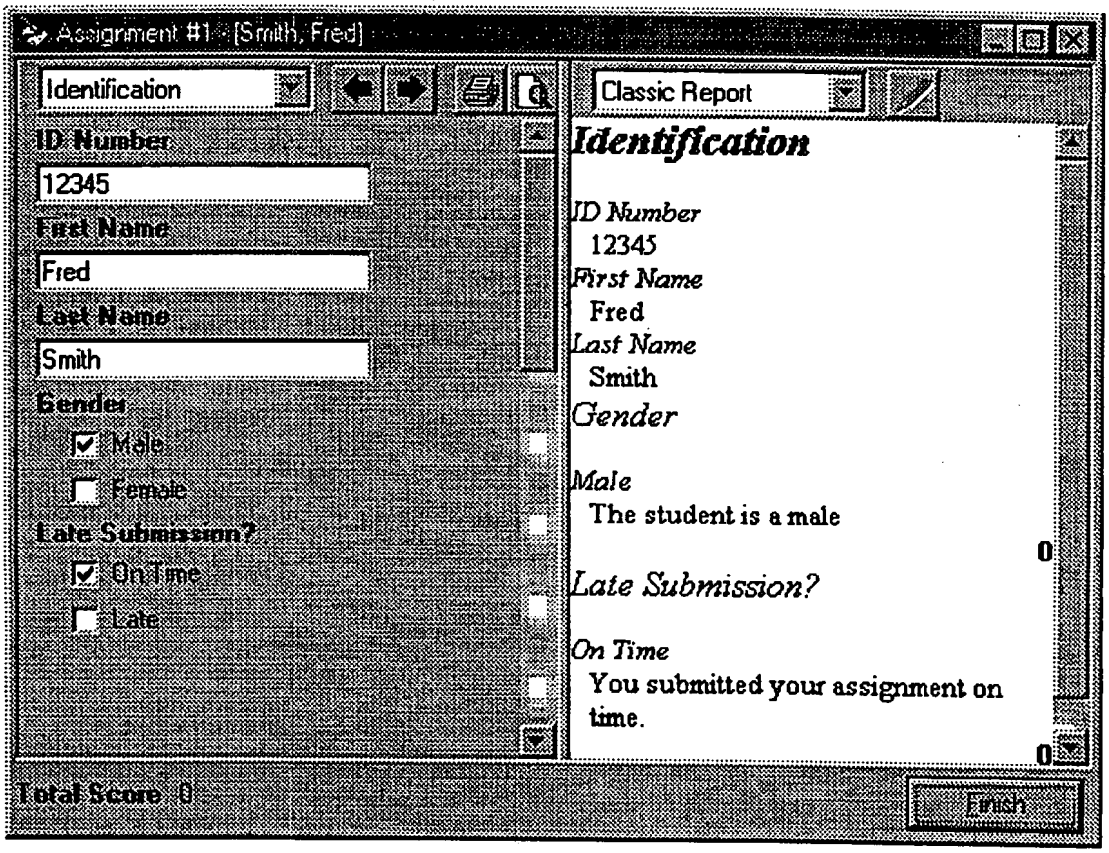

Assignment #1 - [Smith, Fred]
Identification
ID Number
12345
First Name
Fred
Last Name
Smith
Gender
Male
Female
Late Submission?
On Time
Late
Total Score: 0
Classic Report
Identification
ID Number
12345
First Name
Fred
Last Name
Smith
Gender
Male
The student is a male
Late Submission?
On Time
You submitted your assignment on time.
Finish

Fig. 4

Description: Displays the template information in the Template Window
Input: The first template information element (*first*) to display at the top of the Template Window
Returns: Nothing

```
start drawing at the top of the template window
topPixel = 0

start with the specified first template information element
current = first

keep displaying while there are more template information elements that fit in the template window
while topPixel < TemplateWindow.Height && current ≠ Nothing

  should the current template information element be displayed?
  if current is constrained then
    are we showing constrained template information?
    if showing constrained template information then
      we are displaying constrained template information so display current as grey at topPixel
      current.Display as Grey at topPixel

      calculate the screen position of the next template information
      topPixel = topPixel + current.Height + GAP
    end if
  else
    the current template information is not constrained so display at topPixel
    current.Display at topPixel

    calculate the screen position of the next template information
    topPixel = topPixel + current.Height + GAP
  end if

  step to the next template information after the current
  current = current.Next
end while
```

Calculated from the Screen Position in Template Information Database

Fig. 5

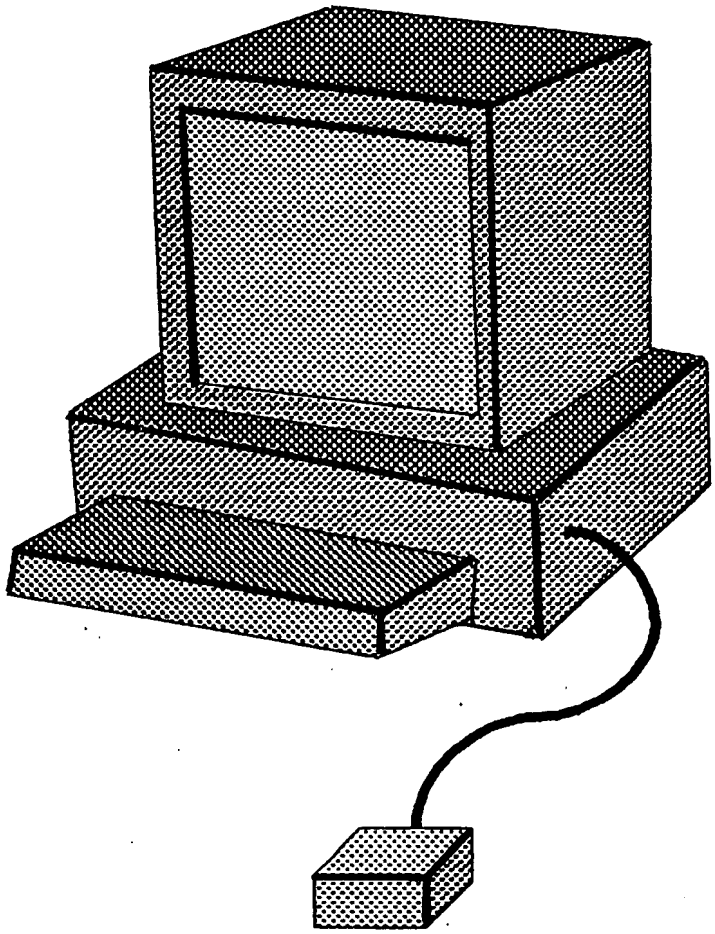


Fig. 6

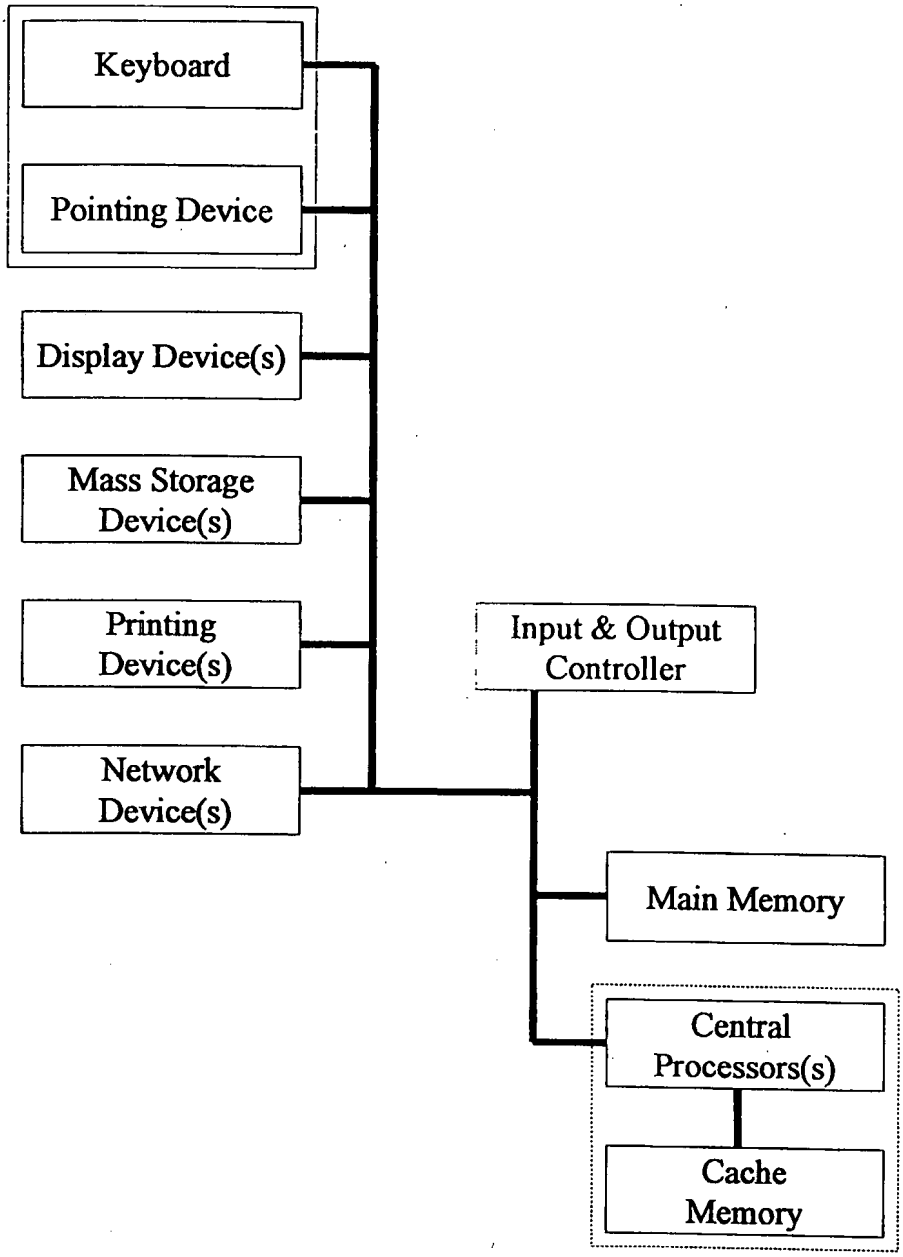

Keyboard
Pointing Device
Display Device(s)
Mass Storage Device(s)
Printing Device(s)
Network Device(s)
Input & Output Controller
Main Memory
Central Processors(s)
Cache Memory

Fig. 7

Description: Displays the compiled report in the Report Window
Input: The first selectable template information element (*first*) to display at the top of the Report Window
Returns: Nothing

start drawing at the top of the report window
topPixel = 0

start with the specified first selectable template information element
current = ***first***

keep displaying while there are more selectable template information elements that fit in the report window
while topPixel < ReportWindow.Height && current ≠ Nothing

  is the current template information element selected?
  if current.Selected **then**
    is the currently selected template information element modified?
    if current.HasCustomInformation **then**
      display the modified template information element in the report window
      current.CustomInformation.Display at topPixel
    else
      display the standard template information in the report window
      current.Standard.Display at topPixel
    end if

From the Report Table

From the Template Table

    calculate the screen position of the next selectable template information
    topPixel = topPixel + current.Height + GAP
  end if

  step to the next template information element after the current
  current = current.Next
end while

calculate and display report score
Display Report Score

Fig. 8

Report Table for Response Element Information

Report ID	Template ID	Selected	Custom Information	Custom Weighting
1	5	True	- -	
1	6	False	- -	
1	8	True	Your assignment was early!	-
1	9	False	- -	
1	10	True	- -	
1	12	False	- -	
1	13	False	- -	
1	14	False	- -	
1	15	False	- -	

Report Table for Textbox Element Information

Report ID	Template ID	Text	Custom Information
1	1	12345	-
1	2	Fred	-
1	3	Smith	-

Fig. 9

Description: This algorithm is performed when template information is selected
Input: The template information element (*t*) selected
Returns: Nothing

constrain the template information as specified by the selected template information element
ConstrainTemplateInformation for *t*

does the selected template information element have an automatic scroll destination?
if *t* has an automatic scroll property **then**
  set the first template information element in the template window to be the auto-scroll property
  FirstTemplateInformation = *t*.AutoScrollTemplateInformation
end if

add the selected template information element to the report database
Add *t* to the report database

redraw the template information window (to refresh constraints applied and perform auto-scrolling)
Display Template Window

redraw the report window (to refresh the report)
Display Report Window

Fig. 10

Description: This algorithm is performed when template information element (*t*) is selected to constrain the remaining available template information
Input: The template information element (*t*) selected
Returns: Nothing

constrain each of the template information elements specified by the constrain list of template information element t.
For Each Template Information Element (*j*) **in** *t*.ConstrainList **do**

constrain j due to the selection of t
j.constrainedBy *t*

End For Each

Fig. 11

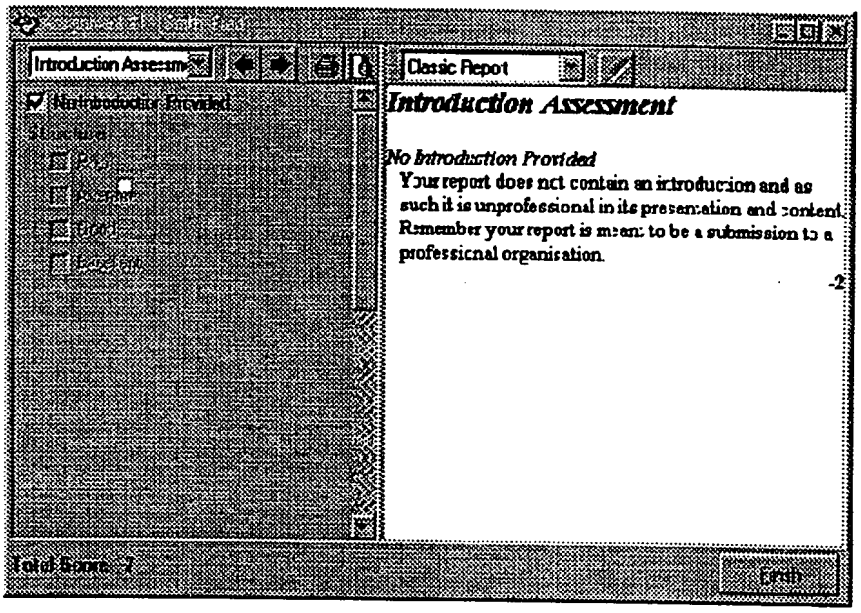

Classic Report
Introduction Assessment
No Introduction Provided
Your report does not contain an introduction and as such it is unprofessional in its presentation and content. Remember your report is meant to be a submission to a professional organisation.
-2

Fig. 12

Description: This algorithm is performed when template information is unselected
Input: The template information element (*t*) unselected
Returns: Nothing

de-constrain the template information as specified by the unselected template information element. (Undo previous constraints due to the selection of t)
DeconstrainTemplateInformation for *t*

remove the unselected template information element from the report database
Remove *t* from the report database

redraw the template information window (to refresh constraints that no longer apply)
Display Template Window

redraw the report window (to refresh the report)
Display Report Window

Fig. 13

Description: This algorithm is performed when template information element (*t*) is unselected. Meaning previously constrained template information needs to be de-constrained.
Input: The template information element (*t*) unselected
Returns: Nothing

de-constrain each of the template information elements specified by the constrain list of template information element t.
For Each Template Information Element (*j*) **in** *t*.ConstrainList **do**

de-constrain j due to the unselection of t
j.deconstrainedBy *t*

End For Each

Fig. 14

Description: This algorithm is performed when a template information element is selected or unselected. It is used to return the score for a compiled report
Input: Nothing
Returns: Score for Report

Assume score is initially nothing
score = 0

For Each Selected Template Information Element (*t*) **in** Compiled Report **do**

add the score for selected template information element t which is the weighting of t multiplied by the weighting of t's parent template information
score = score + (*t*.Weighting * *t*.Parent.Weighting)

End For Each

return the calculated score
return score

Fig. 15

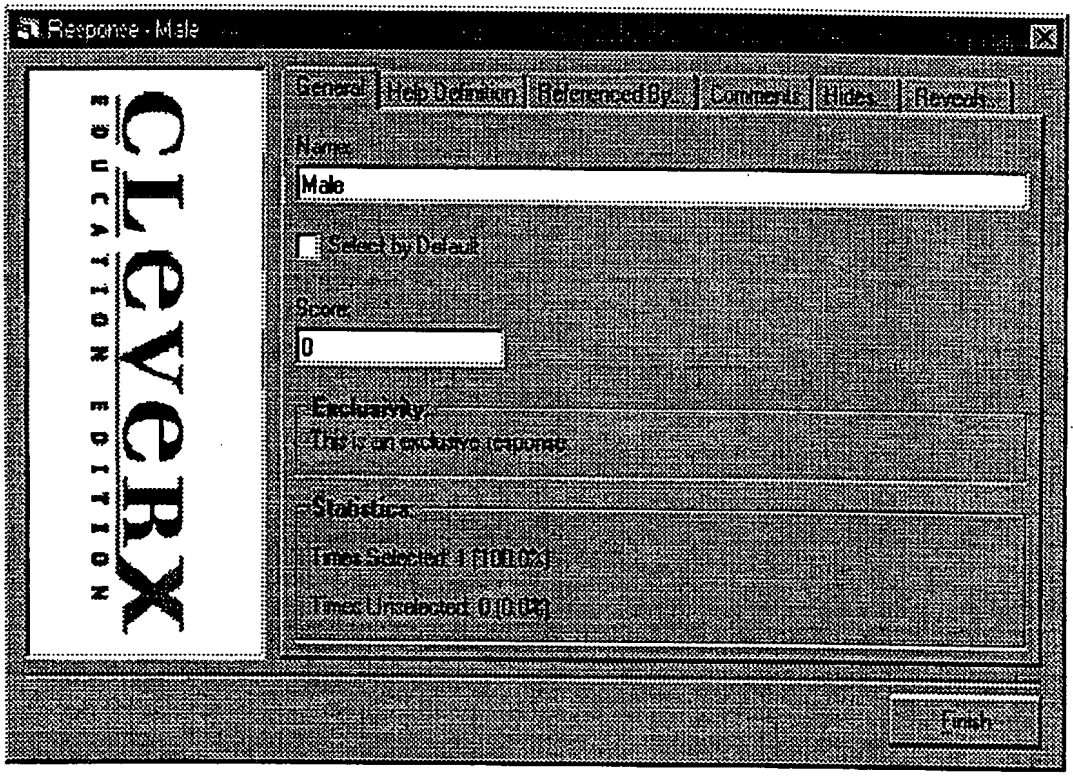
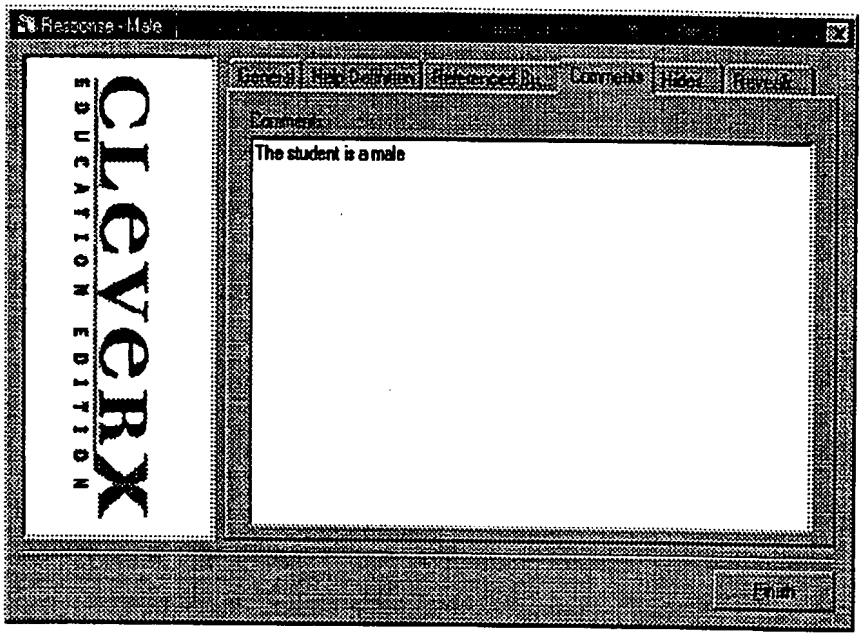

Response - Male
CLeverRX
EDUCATION EDITION
General
Help Definition
Referenced By...
Comments
Hides
Reveals
Name:
Male
Select by Default
Score:
0
Exclusivity:
This is an exclusive response.
Statistics:
Times Selected: 1 [100.0%]
Times Unselected: 0 [0.0%]
Finish

Fig. 16


Response - Male
CLeverX
EDUCATION EDITION
Comments
The student is a male
English

18/19

Fig. 17

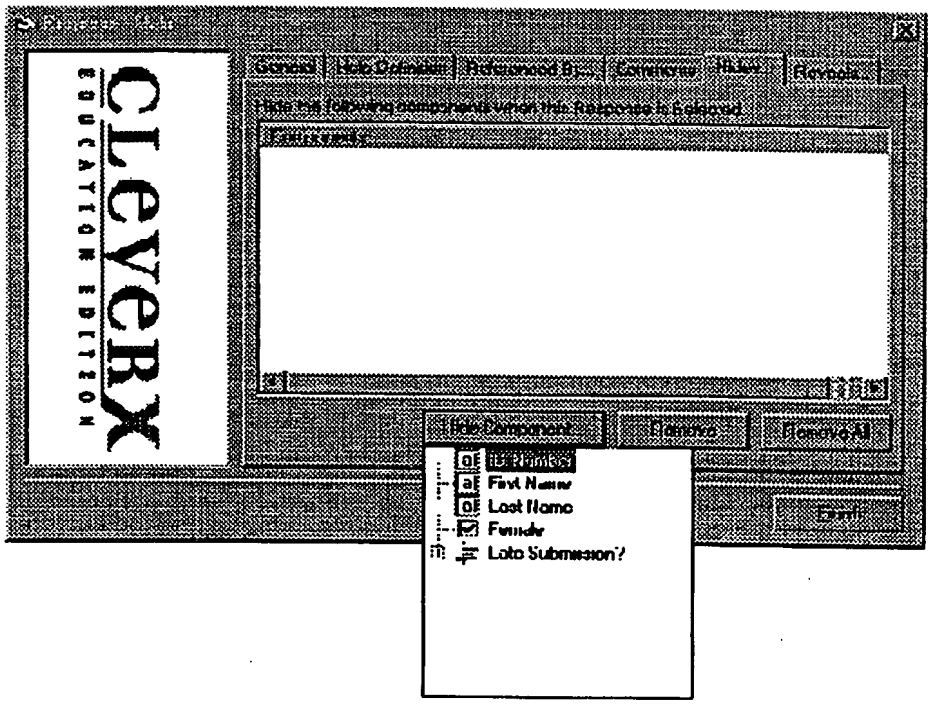
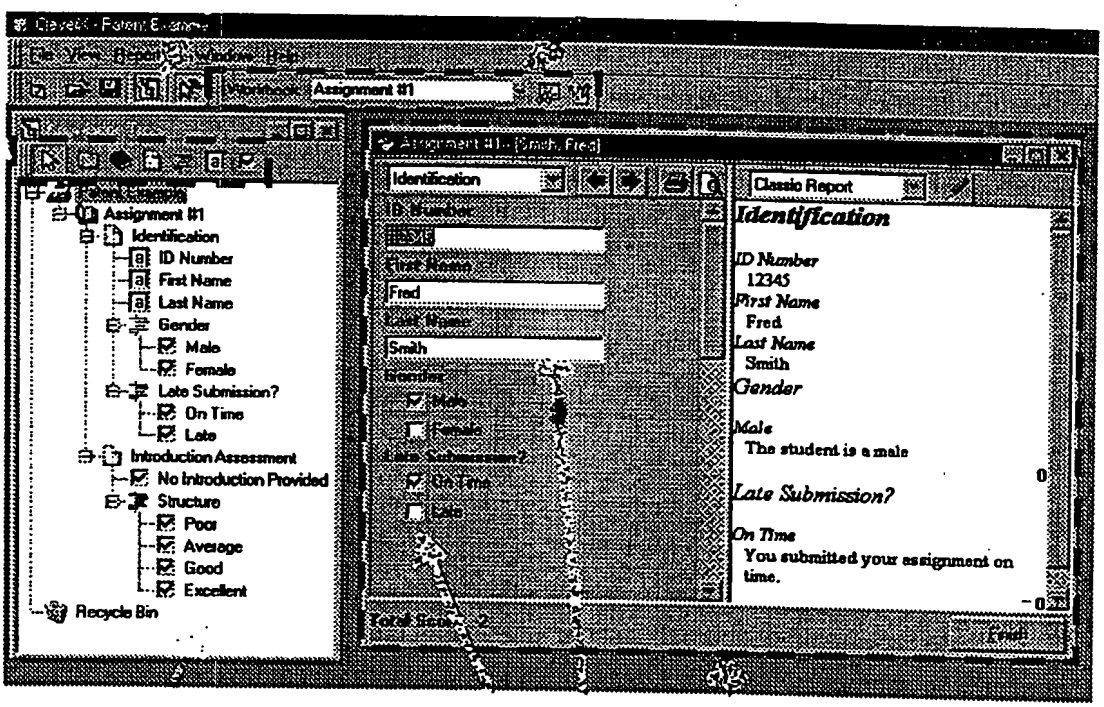

CLeverX
EDUCATION EDITION
General
Hide Component
Remove
Remove All
First Name
Last Name
Female
Late Submission?
Exit

Fig. 18


Assignment #1
Identification
ID Number
First Name
Last Name
Gender
Male
Female
Late Submission?
On Time
Late
Introduction Assessment
No Introduction Provided
Structure
Poor
Average
Good
Excellent
Recycle Bin
Identification
Classic Report
Fred
Smith
Identification
ID Number
12345
First Name
Fred
Last Name
Smith
Gender
Male
The student is a male
Late Submission?
On Time
You submitted your assignment on time.

INTERNATIONAL SEARCH REPORT

International Application No.
PCT/AU 98/00649

A. CLASSIFICATION OF SUBJECT MATTER

Int Cl[6]: G06F 17/22

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
WPAT G06F and ((Report: and template#) or (template# and database)), Window# and G06F and ((Report: and template#) or (template# and database) or (Report: and database))

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US, A, 5267155 (Buchanan et al.) 30 November 1993 see whole document	1-4,7-13,15-18
X	WO, A, 9634348 (Michael Umen & Company, Inc.) 31 October 1996 see whole document	1,10

☐ Further documents are listed in the continuation of Box C

☒ See patent family annex

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
10 September 1998	16 SEP 1998
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200 WODEN ACT 2606 AUSTRALIA Facsimile No.: (02) 6285 3929	Authorized officer S. LEE Telephone No.: (02) 6283 2205

INTERNATIONAL SEARCH REPORT
Information on patent family members

International Application No.
PCT/AU 98/00649

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member					
US	5267155	AU	65096/90	CA	2067780	EP	496747
		US	5148366	WO	9106056		
WO	9634348	AU	55509/96	CA	2216822	EP	832462
		US	5734883				

END OF ANNEX